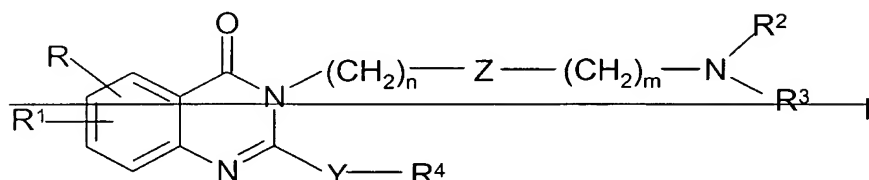


The listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

Claim 1 (Currently Amended): A compound according to claim 4,

Compounds of the formula I



in which

$R$  and  $R^1$  are independently of each other H, A, OH, OA,  $OCH_2$ -Ar, Hal,  $NH_2$ ,  
 $NHA$ ,  $NA_2$ ,  $NO_2$ , CN,  $C(O)R^2$ ,  $CONH_2$ ,  $CONHA$ ,  $CONA_2$ ,  $COOH$ ,  $COOA$   
 or  $SO_2A$ ,

$R^2$  and  $R^3$  are independently of each other H, A,  $C(=NH)NH_2$  or solid phase,

$R^4$  is Ar, cycloalkyl, phenylalkyl or Het,

Y may be absent and, if present, is alkenyl having 2 to 4 carbon  
 atoms,

Z may be absent and, if present, is phenylene,

A is unbranched or branched alkyl having 1 to 6 carbon atoms,

Ar is phenyl, naphthyl, biphenyl or benzofuranyl, which is unsubstituted or  
 mono-, di- or trisubstituted by A, OH, OA,  $CF_3$ ,  $OCF_3$ , Hal, CN,  $COOH$ ,  
 $COOA$ ,  $NH_2$ ,  $NHA$ ,  $NA_2$ ,  $NO_2$ ,  $SO_2NH_2$ ,  $SO_2NAH$  or  $SO_2NA_2$ ;

Het is a saturated, partially or completely unsaturated mono- or bicyclic  
 heterocyclic radical having 5 to 10 ring members, where 1 or 2 N and/or 1 or  
 2 S or O atoms can be present and the heterocyclic radical can be mono- or  
 disubstituted by A, Hal, OH, OA,  $CF_3$ ,  $OCF_3$ ,  $NH_2$ ,  $NHA$ ,  $NA_2$ ,  $COOH$ ,  
 $COOA$ , phenyl which is unsubstituted or mono-, di- or trisubstituted by A,  
 OH, OA,  $CF_3$ ,  $OCF_3$ , Hal, CN,  $COOH$ ,  $COOA$ ,  $NH_2$ ,  $NHA$ ,  $NA_2$ ,  $NO_2$ ,  
 $SO_2NH_2$ ,  $SO_2NAH$  or  $SO_2NA_2$  or thiophenyl which is unsubstituted or mono-,  
 di- or trisubstituted by A, OH, OA,  $CF_3$ ,  $OCF_3$ , Hal, CN,  $COOH$ ,  $COOA$ ,  $NH_2$ ,  
 $NHA$ ,  $NA_2$ ,  $NO_2$ ,  $SO_2NH_2$ ,  $SO_2NAH$  or  $SO_2NA_2$

Hal is F, Cl, Br or I,

n — is 1, 2 or 3,

m — is 0, 1, 2 or 3,

with the additional proviso that

if Z and Y are absent and R<sup>4</sup> is phenyl or 4-methoxyphenyl, then R is not H or 6-Cl, R<sup>1</sup> is not H or 8-Cl, R<sup>2</sup> is not H, methyl or ethyl, R<sup>3</sup> is not H, methyl or ethyl and the sum of n and m (=n+m) is not 2 or 3,

if Z and Y are absent, R<sup>4</sup> is phenyl or 4-methoxyphenyl, R, R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are H, then the sum of n and m (=n+m) is not 2 or 3,

if Y is vinyl, R<sup>4</sup> is phenyl, Z is absent, n is 1, m is 1 and R<sup>2</sup> and R<sup>3</sup> are ethyl, then R or R<sup>1</sup> is not NH<sub>2</sub>,

if Z is absent, Y is absent or vinyl, R<sup>4</sup> is phenyl, phenylalkyl, alkoxyphenyl or pyridyl, R is H and R<sup>1</sup> is NH<sub>2</sub>, then R<sup>2</sup> and R<sup>3</sup> are not A,

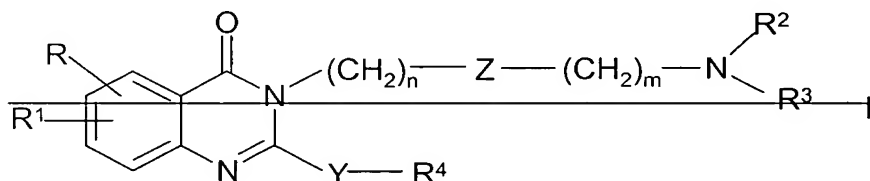
and if Z and Y are absent, then R<sup>4</sup> is not phenylalkyl

and their pharmaceutically tolerable salts and solvates.

Claim 2 (Currently Amended): ~~Compounds of the formula I according to Claim 1~~ A  
compound selected from the group consisting of

- a) 3-(3-aminomethyl-benzyl)-2-[2,2']bithiophenyl-5-yl-6-methoxy-3H-quinazolin-4-one,
- b) 3-(3-aminomethyl-propyl)-2-[2,2']bithiophenyl-5-yl-6-chloro-3H-quinazolin-4-one, and
- c) 3-(3-aminomethyl-propyl)-2-[2,2']bithiophenyl-5-yl-7-chloro-3H-quinazolin-4-one, and  
and their a physiologically acceptable salts salt and solvates solvate thereof.

Claim 3 (Currently Amended): ~~Process A process for the preparation of the compounds~~  
preparing a compound of the formula I or a salt or solvate thereof according to claim 51,  
comprising



in which

R and R<sup>1</sup> — are independently of each other H, A, OH, OA, OCH<sub>2</sub> Ar, Hal, NH<sub>2</sub>,  
NHA, NA<sub>2</sub>, NO<sub>2</sub>, CN, C(O)R<sup>2</sup>, CONH<sub>2</sub>, CONHA, CONA<sub>2</sub>, COOH, COOA

or  $\text{SO}_2\text{A}$ ,

$\text{R}^2$  and  $\text{R}^3$  are independently of each other H, A,  $\text{C}(=\text{NH})\text{NH}_2$  or solid phase,

$\text{R}^4$  is Ar, cycloalkyl, phenylalkyl or Het,

Y may be absent and, if present, is alkenyl having 2 to 4 carbon atoms,

Z may be absent and, if present, is phenylene,

A is unbranched or branched alkyl having 1 to 6 carbon atoms,

Ar is phenyl, naphthyl, biphenyl or benzofuranyl, which is unsubstituted or mono-, di- or trisubstituted by A, OH, OA,  $\text{CF}_3$ ,  $\text{OCF}_3$ , Hal, CN, COOH, COOA,  $\text{NH}_2$ , NHA,  $\text{NA}_2$ ,  $\text{NO}_2$ ,  $\text{SO}_2\text{NH}_2$ ,  $\text{SO}_2\text{NAH}$  or  $\text{SO}_2\text{NA}_2$ ,

Het is a saturated, partially or completely unsaturated mono- or bicyclic heterocyclic radical having 5 to 10 ring members, where 1 or 2 N and/or 1 or 2 S or O atoms can be present and the heterocyclic radical can be mono- or disubstituted by A, Hal, OH, OA,  $\text{CF}_3$ ,  $\text{OCF}_3$ ,  $\text{NH}_2$ , NHA,  $\text{NA}_2$ , COOH, COOA, phenyl which is unsubstituted or mono-, di- or trisubstituted by A, OH, OA,  $\text{CF}_3$ ,  $\text{OCF}_3$ , Hal, CN, COOH, COOA,  $\text{NH}_2$ , NHA,  $\text{NA}_2$ ,  $\text{NO}_2$ ,  $\text{SO}_2\text{NH}_2$ ,  $\text{SO}_2\text{NAH}$  or  $\text{SO}_2\text{NA}_2$  or thiophenyl which is unsubstituted or mono-, di- or trisubstituted by A, OH, OA,  $\text{CF}_3$ ,  $\text{OCF}_3$ , Hal, CN, COOH, COOA,  $\text{NH}_2$ , NHA,  $\text{NA}_2$ ,  $\text{NO}_2$ ,  $\text{SO}_2\text{NH}_2$ ,  $\text{SO}_2\text{NAH}$  or  $\text{SO}_2\text{NA}_2$

Hal is F, Cl, Br or I,

n is 1, 2 or 3,

m is 0, 1, 2 or 3,

with the proviso if Z and Y are absent and  $\text{R}^4$  is phenyl or 4-methoxyphenyl, then R is not H or 6-Cl,  $\text{R}^1$  is not H or 8-Cl,  $\text{R}^2$  is not H, methyl or ethyl,  $\text{R}^3$  is not H, methyl or ethyl and the sum of n and m ( $=n+m$ ) is not 2 or 3,

if Z and Y are absent,  $\text{R}^4$  is phenyl or 4-methoxyphenyl, R,  $\text{R}^1$ ,  $\text{R}^2$  and  $\text{R}^3$  are H, then the sum of n and m ( $=n+m$ ) is not 2 or 3,

if Y is vinyl,  $\text{R}^4$  is phenyl, Z is absent, n is 1, m is 1 and  $\text{R}^2$  and  $\text{R}^3$  are ethyl, then R or  $\text{R}^1$  is not  $\text{NH}_2$ ,

if Z is absent, Y is absent or vinyl,  $\text{R}^4$  is phenyl, phenylalkyl, alkoxyphenyl or pyridyl, R is H and  $\text{R}^1$  is  $\text{NH}_2$ , then  $\text{R}^2$  and  $\text{R}^3$  are not A,

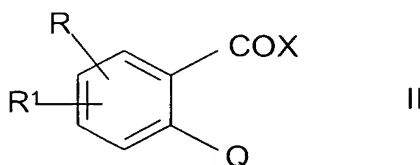
and if Z and Y are absent, then  $\text{R}^4$  is not phenylalkyl

and their pharmaceutically tolerable salts and solvates, characterized in that

a) ~~a compound of the formula I is liberated from one of its functional derivatives by treating a~~  
compound not of formula I with a solvolysing or hydrogenolysing agent to form a compound  
of formula I,

or

b) ~~in stage 1)~~ reacting a compound of the formula II

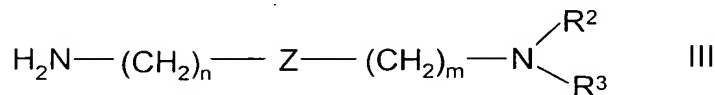


in which

X is Cl, Br, OH or a reactive esterified OH group, and

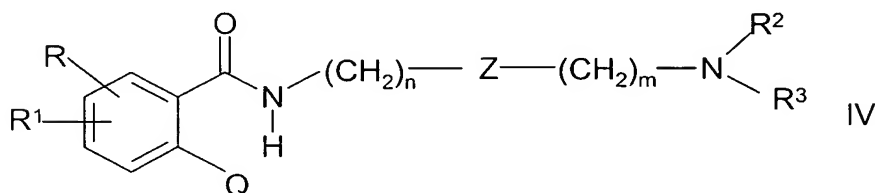
Q is NH<sub>2</sub> or NHA, ~~either of which is~~ optionally is protected, and R and R¹ are as  
defined in claim 51, and each is are optionally protected when they are it is or  
contain contains an NH<sub>2</sub> or NHA group,

~~is reacted~~ with a compound of the formula III



in which R<sup>2</sup>, R<sup>3</sup>, Z, n and m have the meanings indicated in Claim 51 ~~±~~, and R<sup>2</sup> is H or solid  
phase and R<sup>3</sup> is H, -C(=NH)-NH<sub>2</sub>, or solid phase,

to give a compound of formula IV



in which R, R¹, R<sup>2</sup>, R<sup>3</sup>, Q, Z, n and m have the meanings indicated above,

and

~~in stage 2)~~ then a compound of formula IV ~~as indicated above~~ is ~~if necessary~~ deprotected

when Q is protected to give a compound of formula IV in which Q is NH<sub>2</sub> or NHA<sub>1</sub>, and is then said compound of formula IV is reacted with a compound of formula V



in which R<sup>4</sup> and Y have the meanings indicated in Claim 51 4,

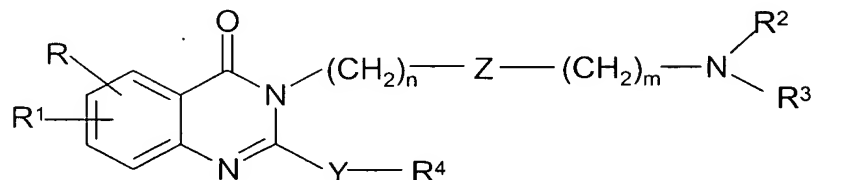
or

c) ~~a radical R, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and/or R<sup>4</sup> is converted into another radical R, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and/or R<sup>4</sup> by, for example converting a compound which differs from a compound of formula I in that it has one or more of R, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> different than in a compound of formula I into a compound of formula I~~

~~converting an amino group into a guanidino group by reaction with an amidinating agent;~~  
~~reducing a nitro group, sulfonyl group or sulfoxyl group;~~  
~~etherifying an OH group or subjecting an OA group to ether cleavage;~~  
~~alkylating a primary or secondary amino group;~~  
~~partially or completely hydrolysing a CN group;~~  
~~cleaving an ester group or esterifying a carboxylic acid radical;~~  
~~reacting an aryl bromide, aryl iodide, heteroaryl bromide or heteroaryliodide to give the corresponding coupling products by means of a Suzuki coupling with boronic acids;~~  
~~or carrying out a nucleophilic or electrophilic substitution;~~  
 and/or

a base or acid of the formula I is converted into one of its salts or solvates.

Claim 4 (Currently Amended): ~~Compounds~~ A compound of the formula I



in which

R and R<sup>1</sup> are independently of each other, H, A, OH, OA, OCH<sub>2</sub>-Ar, Hal, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, CN, C(O)R<sup>2</sup>, CONH<sub>2</sub>, CONHA, CONA<sub>2</sub>, COOH, COOA or SO<sub>2</sub>A,

~~R<sup>2</sup> and R<sup>3</sup> are independently of each other H, A, C(=NH)-NH<sub>2</sub> or solid phase,~~

R<sup>2</sup> is H,

R<sup>3</sup> is H or -C(=NH)-NH<sub>2</sub>,

R<sup>4</sup> is Ar, cycloalkyl, phenylalkyl or Het,

Y ~~may be~~ is absent ~~and, if present,~~ or is alkenyl having 2 to 4 carbon atoms,

Z ~~may be~~ is absent ~~and, if present,~~ or is phenylene,

A is unbranched or branched alkyl having 1 to 6 carbon atoms,

Ar is phenyl, naphthyl, biphenyl or benzofuranyl, which is unsubstituted or mono-, di- or trisubstituted by A, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, Hal, CN, COOH, COOA, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, SO<sub>2</sub>NAH or SO<sub>2</sub>NA<sub>2</sub>,

Het is a saturated, partially or completely unsaturated mono- or bicyclic heterocyclic radical having 5 to 10 ring members, ~~where~~ and having 1 or 2 N and/or 1 or 2 S or O atoms, ~~can be present and the heterocyclic radical can be~~ which is optionally mono- or disubstituted by A, Hal, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, NH<sub>2</sub>, NHA, NA<sub>2</sub>, COOH, COOA, phenyl, which is unsubstituted or mono-, di- or trisubstituted by ~~by~~ A, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, Hal, CN, COOH, COOA, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, SO<sub>2</sub>NAH or SO<sub>2</sub>NA<sub>2</sub>, or thiophenyl, which is unsubstituted or mono-, di- or trisubstituted by A, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, Hal, CN, COOH, COOA, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, SO<sub>2</sub>NAH or SO<sub>2</sub>NA<sub>2</sub>,

Hal is F, Cl, Br or I,

n is 1, 2 or 3, and

m is 0, 1, 2 or 3,

with the proviso that

~~if Y is vinyl, R<sup>4</sup> is phenyl, Z is absent, n is 1, m is 1 and R<sup>2</sup> and R<sup>3</sup> are ethyl, then R or R<sup>1</sup> is not NH<sub>2</sub>,~~

~~if Z is absent, Y is absent or vinyl, R<sup>4</sup> is phenyl, phenylalkyl, alkoxyphenyl or pyridyl, R is H and R<sup>1</sup> is NH<sub>2</sub>, then R<sup>2</sup> and R<sup>3</sup> are not A,~~

~~—and if Z and Y are absent, then R<sup>4</sup> is not phenylalkyl phenylalkyl,~~

~~and their physiologically or a pharmaceutically acceptable salts salt or solvates as pharmaceutical active compounds solvate thereof.~~

Claim 5 (Currently Amended): ~~Compounds of the formula I according to Claim 4 and their physiologically acceptable salts or solvates as~~ A method of antagonizing glycoprotein IbIX antagonists comprising administering to a patient in need thereof an effective amount of a compound according to claim 4, or a pharmaceutically acceptable salt or solvate thereof.

Claim 6 (Currently Amended): ~~Compounds of the formula I according to Claim 4 and their physiologically acceptable salts or solvates as glycoprotein IbIX antagonists for the control of~~ A method of controlling a thrombotic disorders disorder and sequelae deriving therefrom, comprising administering to a patient in need thereof an effective amount of a compound according to claim 4, or a pharmaceutically acceptable salt or solvate thereof.

Claim 7 (Currently Amended): ~~Pharmaceutical preparation characterized in that it contains at least one~~ A pharmaceutical composition comprising a compound of the formula I according to Claim 4 and/or one of its physiologically or a pharmaceutically acceptable salts salt or solvates solvate thereof and a pharmaceutically acceptable excipient.

Claim 8 (Cancelled)

Claim 9 (Currently Amended): ~~Use of compounds of the formula I according to Claim 4 and/or their physiologically acceptable salts or solvates for the production of a pharmaceutical preparation for the treatment of illnesses, such as for the~~ A method for the prophylaxis and/or therapy of a thrombotic disorders, as well as sequelae such as, for example, disorder comprising administering to a patient in need thereof an effective amount of a compound according to claim 4, or a pharmaceutically acceptable salt or solvate thereof myocardial infaret, arteriosclerosis, angina pectoris, acute coronary syndromes, peripheral circulatory disorders, stroke, transient ischaemic attacks, reocclusion/restenosis after angioplasty/stent implantations or as anti-adhesive substances for implants, catheters or heart pacemakers.

Claim 10 (New): A process according to claim 3, wherein c) comprises

- converting an amino group into a guanidino group by reaction with an amidinating agent,
- reducing a nitro group, sulfonyl group or sulfoxyl group,

- etherifying an OH group or subjecting an OA group to ether cleavage,
- alkylating a primary or secondary amino group,
- partially or completely hydrolysing a CN group,
- cleaving an ester group or esterifying a carboxylic acid radical,
- reacting an aryl bromide, aryl iodide, heteroaryl bromide or heteroaryliodide to give the corresponding coupling products by means of a Suzuki coupling with boronic acids, or
- carrying out a nucleophilic or electrophilic substitution.

Claim 11 (New): A process according to claim 3, wherein in a) the compound not of formula I that is treated with a solvolysing or hydrogenolysing agent differs from the compound of formula I in that free amino and/or hydroxyl groups are protected in said compound not of formula I.

Claim 12 (New): A method according to claim 6, wherein the sequelae is myocardial infarct, arteriosclerosis, angina pectoris, acute coronary syndrome, peripheral circulatory disorder, stroke, transient ischaemic attack, or reocclusion/restenosis after angioplasty/stent implantation.

Claim 13 (New): A method of preventing adhesion of substances to a foreign surface inside a body comprising applying a compound according to claim 4 onto said foreign surface.

Claim 14 (New): A method according to claim 12, wherein the foreign surface is an implant, catheter or heart pacemaker.

Claim 15 (New): A compound according to claim 4, wherein  $R^3$  is H.

Claim 16 (New): A compound according to claim 4, wherein

$R$  is H,

$R^1$  is H, A, OA or Hal,

$R^3$  is H,

$R^4$  is phenyl, 2-methylphenyl, 3-methylphenyl, 4-methylphenyl, 4-tert-butylphenyl, 4-dimethylaminophenyl, 4-methoxyphenyl, 3-methoxyphenyl, 3-chlorophenyl, 3,4,5-



trimethoxyphenyl, 3,4-dimethoxyphenyl, 2,5-dimethoxyphenyl, 3',5'-dimethoxy-biphenyl-4-yl, 2',4'-dimethoxybiphenyl-4-yl, biphenyl-4-yl, naphthalen-1-yl, naphthalen-2-yl or benzofuran-5-yl, phenylethyl, cyclohexyl, 2-furyl, thiophen-2-yl, thiophen-3-yl, 5-(3,4-dimethoxyphenyl)-thiophen-2-yl or 5-[2,2']bithiophenyl,

Z is absent,

n is 1, and

m is 1.

Claim 17 (New): A compound according to claim 4, wherein

R is H,

R<sup>1</sup> is H, A, OA or Hal,

R<sup>3</sup> is H,

R<sup>4</sup> is phenyl, 2-methylphenyl, 3-methylphenyl, 4-methylphenyl, 4-tert-butylphenyl, 4-dimethylaminophenyl, 4-methoxyphenyl, 3-methoxyphenyl, 3-chlorophenyl, 3,4,5-trimethoxyphenyl, 3,4-dimethoxyphenyl, 2,5-dimethoxyphenyl, 3',5'-dimethoxy-biphenyl-4-yl, 2',4'-dimethoxybiphenyl-4-yl, biphenyl-4-yl, naphthalen-1-yl, naphthalen-2-yl or benzofuran-5-yl, phenylethyl, cyclohexyl, 2-furyl, thiophen-2-yl, thiophen-3-yl, 5-(3,4-dimethoxyphenyl)-thiophen-2-yl or 5-[2,2']bithiophenyl,

Z is phenylene,

n is 1, and

m is 1.

Claim 18 (New): A compound according to claim 4, wherein

R is H,

R<sup>1</sup> is H, A, OA or Hal,

R<sup>2</sup> is H,

R<sup>3</sup> is H,

Y is -CH=CH-,

R<sup>4</sup> is phenyl, 4-dimethylaminophenyl or 2,5-dimethoxyphenyl,

Z is absent,

n is 1, and

m is 1.

Claim 19 (New): A compound according to claim 4, wherein

R is H,  
R<sup>1</sup> is H, A, OA or Hal,  
R<sup>3</sup> is H,  
Y is -CH=CH-,  
R<sup>4</sup> is phenyl, 4-dimethylaminophenyl or 2,5-dimethoxyphenyl,  
Z is phenylene,  
n is 1, and  
m is 1.

Claim 20 (New): A compound according to claim 4, wherein

R is H,  
R<sup>1</sup> is H, A, OA or Hal,  
R<sup>3</sup> is H,  
Y is absent,  
R<sup>4</sup> is phenyl, 2-methylphenyl, 3-methylphenyl, 4-methylphenyl, 4-tert-butylphenyl, 4-methoxyphenyl, 3-methoxyphenyl, 3-chlorophenyl, 3,4,5-trimethoxyphenyl, 3,4-dimethoxyphenyl, 3',5'-dimethoxybiphenyl, 2',4'-dimethoxybiphenyl-4-yl, biphenyl-4-yl, naphthalen-1-yl, naphthalen-2-yl or benzofuran-5-yl, phenylethyl, cyclohexyl, 2-furyl, thiophen-2-yl, thiophen-3-yl, 5-(3,4-dimethoxyphenyl)-thiophen-2-yl or 5-[2,2']bithiophenyl,  
Z is absent,  
n is 1, and  
m is 1.

Claim 21 (New): A compound according to claim 4, wherein

R is H,  
R<sup>1</sup> is H, A, OA or Hal,  
R<sup>3</sup> is H,  
Y is absent,  
R<sup>4</sup> is phenyl, 2-methylphenyl, 3-methylphenyl, 4-methylphenyl, 4-tert-butylphenyl, 4-methoxyphenyl, 3-methoxyphenyl, 3-chlorophenyl, 3,4,5-trimethoxyphenyl, 3,4-dimethoxyphenyl, 3',5'-dimethoxybiphenyl-4-yl, 2',4'-dimethoxybiphenyl-4-yl, biphenyl-4-yl, naphthalen-1-yl, naphthalen-2-yl or benzofuran-5-yl, phenylethyl, cyclohexyl, 2-furyl,

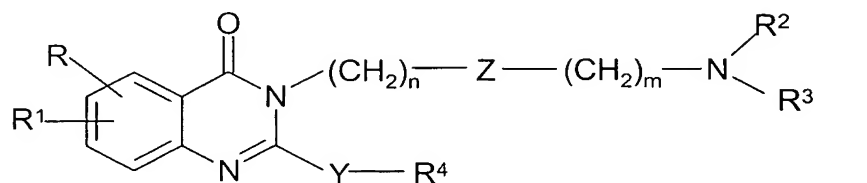
thiophen-2-yl, thiophen-3-yl, 5-(3,4-dimethoxyphenyl)-thiophen-2-yl or 5-[2,2']bithiophenyl,

Z is phenylene,

n is 1, and

m is 1.

Claim 22 (New): A compound of formula I



in which

R and R<sup>1</sup> are, independently of each other, H, A, OH, OA, OCH<sub>2</sub>-Ar, Hal, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, CN, C(O)R<sup>2</sup>, CONH<sub>2</sub>, CONHA, CONA<sub>2</sub>, COOH, COOA or SO<sub>2</sub>A,

R<sup>2</sup> and R<sup>3</sup> are, independently of each other, H, A, or C(=NH)-NH<sub>2</sub>,

R<sup>4</sup> is Ar, cycloalkyl, phenylalkyl or Het,

Y is absent,

Z is absent or is phenylene,

A is unbranched or branched alkyl having 1 to 6 carbon atoms,

Ar is phenyl, naphthyl, biphenyl or benzofuranyl, which is unsubstituted or mono-, di- or trisubstituted by A, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, Hal, CN, COOH, COOA, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, SO<sub>2</sub>NAH or SO<sub>2</sub>NA<sub>2</sub>,

Het is a saturated, partially or completely unsaturated mono- or bicyclic heterocyclic radical having 5 to 10 ring members, and having 1 or 2 N and/or 1 or 2 S or O atoms, which is optionally mono- or disubstituted by A, Hal, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, NH<sub>2</sub>, NHA, NA<sub>2</sub>, COOH, COOA, phenyl, which is unsubstituted or mono-, di- or trisubstituted by A, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, Hal, CN, COOH, COOA, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, SO<sub>2</sub>NAH or SO<sub>2</sub>NA<sub>2</sub>, or thiophenyl, which is unsubstituted or mono-, di- or trisubstituted by A, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, Hal, CN, COOH, COOA, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, SO<sub>2</sub>NAH or SO<sub>2</sub>NA<sub>2</sub>,

Hal is F, Cl, Br or I,

n is 1, 2 or 3, and

m is 0, 1, 2 or 3,

with the provisos that

if Z is absent, R<sup>4</sup> is phenyl, phenylalkyl, alkoxyphenyl or pyridyl, R is H and R<sup>1</sup> is NH<sub>2</sub>, then R<sup>2</sup> and R<sup>3</sup> are not A,

and if Z is absent, then R<sup>4</sup> is not phenylalkyl,

or a pharmaceutically acceptable salt or solvate thereof.

Claim 23 (New): A compound according to claim 22,

with the additional provisos that

if Z is absent and R<sup>4</sup> is phenyl or 4-methoxyphenyl, then R is not H or 6-Cl, R<sup>1</sup> is not H or 8-Cl, R<sup>2</sup> is not H, methyl or ethyl, R<sup>3</sup> is not H, methyl or ethyl and the sum of n and m is not 2 or 3, and

if Z is absent, R<sup>4</sup> is phenyl or 4-methoxyphenyl, R, R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are H, then the sum of n and m is not 2 or 3.

Claim 24 (New): A compound according to claim 22, wherein

R is H, and

R<sup>1</sup> is H, A, OA or Hal.

Claim 25 (New): A compound according to claim 22, wherein

R is H,

R<sup>1</sup> is H, A, OA or Hal, and

Z is absent.

Claim 26 (New): A compound according to claim 22, wherein

R is H,

R<sup>1</sup> is H, A, OA or Hal,

R<sup>4</sup> is Ar, cycloalkyl or Het, and

Z is absent.

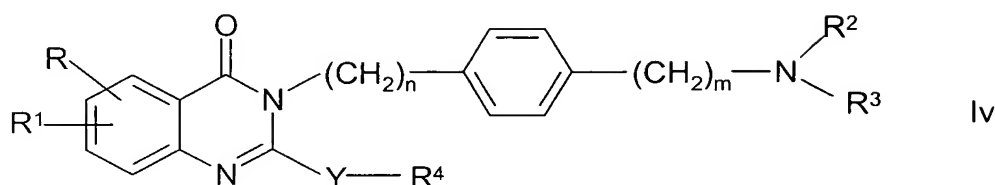
Claim 27 (New): A compound according to claim 22, wherein

R is H,  
 R<sup>1</sup> is H, A, OA or Hal,  
 R<sup>4</sup> is Het,  
 Y is absent. and  
 Z is absent.

Claim 28 (New): A compound according to claim 22, wherein

R is H,  
 R<sup>1</sup> is H, A, OA or Hal, and  
 Z is phenylene.

Claim 29 (New): A compound of formula Iv



in which

R and R<sup>1</sup> are, independently of each other, H, A, OH, OA, OCH<sub>2</sub>-Ar, Hal, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, CN, C(O)R<sup>2</sup>, CONH<sub>2</sub>, CONHA, CONA<sub>2</sub>, COOH, COOA or SO<sub>2</sub>A,  
 R<sup>2</sup> and R<sup>3</sup> are, independently of each other, H, A, or C(=NH)-NH<sub>2</sub>,  
 R<sup>4</sup> is Ar, cycloalkyl, phenylalkyl or Het,  
 Y is absent or is alkenyl having 2 to 4 carbon atoms,  
 A is unbranched or branched alkyl having 1 to 6 carbon atoms,  
 Ar is phenyl, naphthyl, biphenyl or benzofuranyl, which is unsubstituted or mono-, di- or trisubstituted by A, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, Hal, CN, COOH, COOA, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, SO<sub>2</sub>NAH or SO<sub>2</sub>NA<sub>2</sub>,  
 Het is a saturated, partially or completely unsaturated mono- or bicyclic heterocyclic radical having 5 to 10 ring members, and having 1 or 2 N and/or 1 or 2 S or O atoms, which is optionally mono- or disubstituted by A, Hal, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, NH<sub>2</sub>, NHA, NA<sub>2</sub>, COOH, COOA, phenyl, which is

unsubstituted or mono-, di- or trisubstituted by A, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, Hal, CN, COOH, COOA, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, SO<sub>2</sub>NAH or SO<sub>2</sub>NA<sub>2</sub>, or thiophenyl, which is unsubstituted or mono-, di- or trisubstituted by A, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, Hal, CN, COOH, COOA, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, SO<sub>2</sub>NAH or SO<sub>2</sub>NA<sub>2</sub>,

Hal is F, Cl, Br or I,

n is 1, 2 or 3, and

m is 0, 1, 2 or 3,

or a pharmaceutically acceptable salt or solvate thereof.

Claim 30 (New): A compound according to claim 29, wherein

R is H,

R<sup>1</sup> is H, A, OA or Hal, and

Y is alkenyl having 2 to 4 carbon atoms.

Claim 31 (New): A method of antagonizing glycoprotein IbIX comprising administering to a patient in need thereof an effective amount of a compound according to claim 22, or a pharmaceutically acceptable salt or solvate thereof.

Claim 32 (New): A method of controlling a thrombotic disorder and sequelae deriving therefrom, comprising administering to a patient in need thereof an effective amount of a compound according to claim 22, or a pharmaceutically acceptable salt or solvate thereof.

Claim 33 (New): A pharmaceutical composition comprising a compound according to Claim 22 or a pharmaceutically acceptable salt or solvate thereof and a pharmaceutically acceptable excipient.

Claim 34 (New): A method for the prophylaxis and/or therapy of a thrombotic disorder comprising administering to a patient in need thereof an effective amount of a compound according to claim 22, or a pharmaceutically acceptable salt or solvate thereof.

Claim 35 (New): A method according to claim 32, wherein the sequelae is myocardial infarct, arteriosclerosis, angina pectoris, acute coronary syndrome, peripheral circulatory

disorder, stroke, transient ischaemic attack, or reocclusion/restenosis after angioplasty/stent implantation.

Claim 36 (New): A method of preventing adhesion of substances to a foreign surface inside a body comprising applying a compound according to claim 22 onto said foreign surface.

Claim 37 (New): A method according to claim 36, wherein the foreign surface is an implant, catheter or heart pacemaker.

Claim 38 (New): A method of antagonizing glycoprotein IbIX comprising administering to a patient in need thereof an effective amount of a compound according to claim 29, or a pharmaceutically acceptable salt or solvate thereof.

Claim 39 (New): A method of controlling a thrombotic disorder and sequelae deriving therefrom, comprising administering to a patient in need thereof an effective amount of a compound according to claim 29, or a pharmaceutically acceptable salt or solvate thereof.

Claim 40 (New): A pharmaceutical composition comprising a compound according to Claim 29 or a pharmaceutically acceptable salt or solvate thereof and a pharmaceutically acceptable excipient.

Claim 41 (New): A method for the prophylaxis and/or therapy of a thrombotic disorder comprising administering to a patient in need thereof an effective amount of a compound according to claim 29, or a pharmaceutically acceptable salt or solvate thereof.

Claim 42 (New): A method according to claim 39, wherein the sequelae is myocardial infarct, arteriosclerosis, angina pectoris, acute coronary syndrome, peripheral circulatory disorder, stroke, transient ischaemic attack, or reocclusion/restenosis after angioplasty/stent implantation.

Claim 43 (New): A method of preventing adhesion of substances to a foreign surface inside a body comprising applying a compound according to claim 29 onto said foreign surface.

Claim 44 (New): A method according to claim 43, wherein the foreign surface is an implant, catheter or heart pacemaker.

Claim 45 (New): A method of antagonizing glycoprotein IbIX comprising administering to a patient in need thereof an effective amount of a compound according to claim 2, or a pharmaceutically acceptable salt or solvate thereof.

Claim 46 (New): A method of controlling a thrombotic disorder and sequelae deriving therefrom, comprising administering to a patient in need thereof an effective amount of a compound according to claim 2, or a pharmaceutically acceptable salt or solvate thereof.

Claim 47 (New): A pharmaceutical composition comprising a compound according to Claim 2 or a pharmaceutically acceptable salt or solvate thereof and a pharmaceutically acceptable excipient.

Claim 48 (New): A method for the prophylaxis and/or therapy of a thrombotic disorder comprising administering to a patient in need thereof an effective amount of a compound according to claim 2, or a pharmaceutically acceptable salt or solvate thereof.

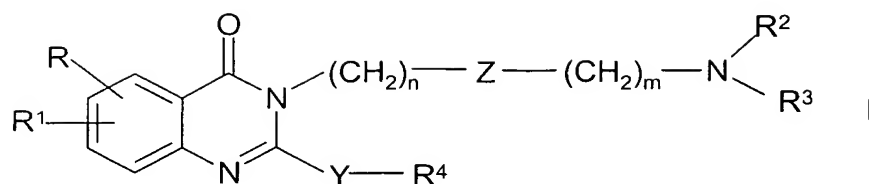
Claim 48 (New): A method according to claim 46, wherein the sequelae is myocardial infarct, arteriosclerosis, angina pectoris, acute coronary syndrome, peripheral circulatory disorder, stroke, transient ischaemic attack, or reocclusion/restenosis after angioplasty/stent implantation.

Claim 49 (New): A method of preventing adhesion of substances to a foreign surface inside a body comprising applying a compound according to claim 2 onto said foreign surface.

Claim 50 (New): A method according to claim 49, wherein the foreign surface is an implant, catheter or heart pacemaker.

Claim 51 (New): A compound of formula I





in which

- R and R<sup>1</sup> are, independently of each other, H, A, OH, OA, OCH<sub>2</sub>-Ar, Hal, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, CN, C(O)R<sup>2</sup>, CONH<sub>2</sub>, CONHA, CONA<sub>2</sub>, COOH, COOA or SO<sub>2</sub>A,
- R<sup>2</sup> and R<sup>3</sup> are, independently of each other, H, A, or C(=NH)-NH<sub>2</sub>,
- R<sup>4</sup> is Ar, cycloalkyl, phenylalkyl or Het,
- Y is absent or is alkenyl having 2 to 4 carbon atoms,
- Z is absent or is phenylene,
- A is, in each case independently, methyl, propyl, isopropyl, butyl, isobutyl, sec-butyl or tert-butyl, pentyl, 1-, 2- or 3-methylbutyl, 1,1-, 1,2- or 2,2-dimethylpropyl, 1-ethylpropyl, hexyl, 1-, 2-, 3- or 4-methylpentyl, 1,1-, 1,2-, 1,3-, 2,2-, 2,3- or 3,3-dimethylbutyl, 1- or 2-ethylbutyl, 1-ethyl-1-methylpropyl, 1-ethyl-2-methylpropyl, or 1,1,2- or 1,2,2-trimethylpropyl,
- Ar is phenyl, naphthyl, biphenyl or benzofuranyl, which is unsubstituted or mono-, di- or trisubstituted by A, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, Hal, CN, COOH, COOA, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, SO<sub>2</sub>NAH or SO<sub>2</sub>NA<sub>2</sub>,
- Het is a saturated, partially or completely unsaturated mono- or bicyclic heterocyclic radical having 5 to 10 ring members, and having 1 or 2 N and/or 1 or 2 S or O atoms, which is optionally mono- or disubstituted by A, Hal, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, NH<sub>2</sub>, NHA, NA<sub>2</sub>, COOH, COOA, phenyl, which is unsubstituted or mono-, di- or trisubstituted by A, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, Hal, CN, COOH, COOA, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, SO<sub>2</sub>NAH or SO<sub>2</sub>NA<sub>2</sub>, or thiophenyl, which is unsubstituted or mono-, di- or trisubstituted by A, OH, OA, CF<sub>3</sub>, OCF<sub>3</sub>, Hal, CN, COOH, COOA, NH<sub>2</sub>, NHA, NA<sub>2</sub>, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, SO<sub>2</sub>NAH or SO<sub>2</sub>NA<sub>2</sub>,
- Hal is F, Cl, Br or I,
- n is 1, 2 or 3, and
- m is 0, 1, 2 or 3,

with the proviso that

if Y is vinyl, R<sup>4</sup> is phenyl, Z is absent, n is 1, m is 1 and R<sup>2</sup> and R<sup>3</sup> are ethyl, then R or R<sup>1</sup> is not NH<sub>2</sub>,

if Z is absent, Y is absent or vinyl, R<sup>4</sup> is phenyl, phenylalkyl, alkoxyphenyl or pyridyl, R is H and R<sup>1</sup> is NH<sub>2</sub>, then R<sup>2</sup> and R<sup>3</sup> are not A,

and if Z and Y are absent, then R<sup>4</sup> is not phenylalkyl,

or a pharmaceutically acceptable salt or solvate thereof.

Claim 52 (New): A compound according to claim 51 wherein

A is, in each case independently, isopropyl, butyl, isobutyl, sec-butyl or tert-butyl, pentyl, 1-, 2- or 3-methylbutyl, 1,1-, 1,2- or 2,2-dimethylpropyl, 1-ethylpropyl, hexyl, 1-, 2-, 3- or 4-methylpentyl, 1,1-, 1,2-, 1,3-, 2,2-, 2,3- or 3,3-dimethylbutyl, 1- or 2-ethylbutyl, 1-ethyl-1-methylpropyl, 1-ethyl-2-methylpropyl, or 1,1,2- or 1,2,2-trimethylpropyl.

Claim 53 (New): A compound according to claim 51 with the additional provisos that if Z and Y are absent and R<sup>4</sup> is phenyl or 4-methoxyphenyl, then R is not H or 6-Cl, R<sup>1</sup> is not H or 8-Cl, R<sup>2</sup> is not H, methyl or ethyl, R<sup>3</sup> is not H, methyl or ethyl and the sum of n and m is not 2 or 3, and

if Z and Y are absent, R<sup>4</sup> is phenyl or 4-methoxyphenyl, R, R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are H, then the sum of n and m is not 2 or 3.

Claim 54 (New): A method of antagonizing glycoprotein IbIX comprising administering to a patient in need thereof an effective amount of a compound according to claim 51, or a pharmaceutically acceptable salt or solvate thereof.

Claim 55 (New): A method of controlling a thrombotic disorder and sequelae deriving therefrom, comprising administering to a patient in need thereof an effective amount of a compound according to claim 51, or a pharmaceutically acceptable salt or solvate thereof.

Claim 56 (New): A pharmaceutical composition comprising a compound according to Claim 51 or a pharmaceutically acceptable salt or solvate thereof and a pharmaceutically acceptable excipient.

Claim 57 (New): A method for the prophylaxis and/or therapy of a thrombotic disorder comprising administering to a patient in need thereof an effective amount of a compound according to claim 51, or a pharmaceutically acceptable salt or solvate thereof.

Claim 58 (New): A method according to claim 55, wherein the sequelae is myocardial infarct, arteriosclerosis, angina pectoris, acute coronary syndrome, peripheral circulatory disorder, stroke, transient ischaemic attack, or reocclusion/restenosis after angioplasty/stent implantation.

Claim 59 (New): A method of preventing adhesion of substances to a foreign surface inside a body comprising applying a compound according to claim 51 onto said foreign surface.

Claim 60 (New): A method according to claim 59, wherein the foreign surface is an implant, catheter or heart pacemaker.

Claim 61 (New): A intermediate compound of a compound according to claim 4, wherein at least one of  $R^2$  or  $R^3$  is a solid phase instead of a group as defined.

Claim 62 (New): A intermediate compound of a compound according to claim 22, wherein at least one of  $R^2$  or  $R^3$  is a solid phase instead of a group as defined.

Claim 63 (New): A intermediate compound of a compound according to claim 29, wherein at least one of  $R^2$  or  $R^3$  is a solid phase instead of a group as defined.

Claim 64 (New): A intermediate compound of a compound according to claim 51, wherein at least one of  $R^2$  or  $R^3$  is a solid phase instead of a group as defined.

Claim 65 (New): A foreign surface having attached thereto a compound according to claim 4.

Claim 66 (New): A foreign surface according to claim 65 that is an implant, catheter or heart pacemaker.

Claim 67 (New): A foreign surface having attached thereto a compound according to claim 22.

Claim 68 (New): A foreign surface according to claim 67 that is an implant, catheter or heart pacemaker.

Claim 69 (New): A foreign surface having attached thereto a compound according to claim 29.

Claim 70 (New): A foreign surface according to claim 69 that is an implant, catheter or heart pacemaker.

Claim 71 (New): A foreign surface having attached thereto a compound according to claim 51.

Claim 72 (New): A foreign surface according to claim 71 that is an implant, catheter or heart pacemaker.